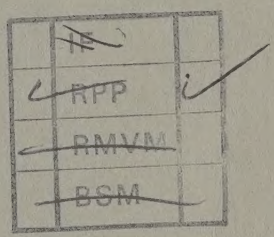
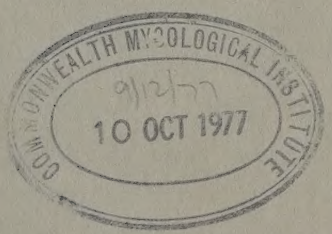
1976/M/5

REPORT OF THE

TENTH SESSION OF THE PLANT PROTECTION COMMITTEE FOR THE SOUTH EAST ASIA AND PACIFIC REGION

Held in Canberra, Australia
9-16 February 1976





FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

Place and Date of Sessions of the Plant Protection Committee for the South East Asia and Pacific Region

First	-	Bangkok, Thailand; 3-7 December, 1956
Second	-	Kandy, Sri Lanka; 2-7 December, 1957
Third	-	New Delhi, India; 7-12 December, 1959
Fourth	-	Manila, Philippines; 11-19 June, 1962
Fifth	-	Canberra, Australia; 26 November to 2 December, 1964
Sixth	-	Kuala Lumpur, Malaysia; 27 March to 3 April, 1967
Seventh	-	Noumea, New Caledonia; 15-23 July, 1969
Eighth	-	Jakarta, Indonesia; 4-11 October, 1971
Ninth	-	New Delhi, India; 2-9 November, 1973
Tenth	-	Canberra, Australia; 9-16 February, 1976

AGP:1976/M/5

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Bangkok, 1976

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I. INTRODUCTION

The Plant Protection Agreement for the South East Asia and Pacific Region established the Plant Protection Committee on 2 July, 1956. The Committee, consisting of representatives of the participating governments, which now number 20, acts as an advisory body on matters relating to the Agreement and considers and makes recommendations on plant protection problems, particularly those requiring regional cooperation.

2. The Tenth Session of the Committee was held by the courtesy of the Government of the Commonwealth of Australia, at Burgmann College, Canberra, from 9 to 16 February, 1976. The Session was attended by the delegates of ten participating governments as well as observers from one country and the South Pacific Commission. Nine general meetings and eleven meetings of the sub-committees were held during the Session. In all, 30 delegates and 7 observers participated in the Session, and 59 documents were circulated. Invitational papers on "A Review of Australian Research on Insect Disinfestation in Fruit and Vegetables after Harvest", and "Disease Forecasting in Australia" were prepared and presented by Mr. Allan Seberry and Mr. Peter T. Jenkins of Australia, respectively.

3. Field trips were arranged to the Plant Quarantine Research Station, Weston, Canberra; Wagga; Leeton; Riverina District and Griffith by the kind courtesy of the Director of Plant Quarantine, Department of Health. Post-session tours were also organized for interested participants to Sydney Region in New South Wales and Brisbane Region in Queensland.

4. In welcoming the delegates and observers on behalf of the Director-General of Food and Agriculture Organization of the United Nations, Dr. D.L. Umali, Assistant Director-General and Regional Representative of FAO in Asia and the Far East, expressed gratitude to the Government of the Commonwealth of Australia, particularly to the Minister of Health for hosting the Tenth Session of the Committee and for making excellent arrangements. Dr. Umali briefly reviewed the progress made by the Committee and informed the participants that the FAO Regional Conference in its Session in 1974 noted with satisfaction the activities and achievements of the Plant Protection Committee. While recognizing the serious efforts made by Member Governments, he emphasized the need for more concerted efforts in strengthening plant protection activities in order to increase and stabilize agricultural productivity in the Region. In this connection, Dr. Umali informed the Session that plant protection formed an important aspect of the priority areas of work of FAO in the Region.

5. Dr. Umali emphasized the need for developing plant protection programmes on an urgent basis for the small low-income farmer, who is generally isolated by geography, lack of organization, credit and other modern facilities. He further stated that, unless the yield levels in most of the rainfed agricultural areas are raised, not only food self-sufficiency will remain a far cry but the socio-economic conditions of millions of small farmers will remain unchanged, thus ensuring the continuity of the gruelling race for food in the Region.

6. The Regional Representative informed the participants that the FAO Regional Conference would expect the Committee to advise it on the development of a plant protection strategy in the Region and also to act as a regional coordinating mechanism for the plant protection programmes. He drew attention of the Session to the Resolution of the Regional Conference on the establishment of an organic link between the Committee and the Regional Conference and stressed the important role of the Committee in assisting the Regional Conference in the field of plant protection.

7. Referring to the Australian assistance programmes in the Region, particularly in plant quarantine and plant protection, Dr. Umali said that it was not only appreciated but this gave the countries a warm feeling that Australia is one among them in the development of the Region. Dr. Umali stated that the FAO Plant Protection Committee for the South East Asia and the Pacific Region, which is in its twentieth year of existence, was a triumph in regional cooperation.

8. Delivering the Inaugural Address, the Honourable Ralph Hunt, M.P., Minister of Health, Commonwealth of Australia, extended a warm welcome to the participants and the Assistant Director-General and Regional Representative of FAO and the other FAO Officers to Australia. The Minister said that where plant protection is concerned, each country in the Region faced a continuing challenge. He urged that all primary produce, not only food but also some of the basic commodities for clothing and shelter, must be safeguarded against losses from insects and plant diseases as well as severe competition from weeds. While mentioning the responsibilities of different departments for different functions in respect of plant protection, the Minister underlined the cooperation between the various agencies. The Honourable Ralph Hunt mentioned that in spite of the good progress made in several fields of plant protection, Australia was not without its serious problems. Cotton growers in New South Wales were facing the problems of insecticide resistance and residues. The recent discovery of the oriental fruit fly in the Northern Territory was causing great concern in Australia.

9. Australia had always believed in regional cooperation and assistance to its neighbours in the Region. The Minister was happy that the programmes in the plant protection supported by Australia were being received well and hoped that they will result in further strengthening the plant quarantine and plant protection services.

10. The Minister said that, primary production is the most important activity in all the countries in the Region. While several of the countries find it a real challenge to produce sufficient food to meet their own needs, Australia has long been a producer for export. In Australia, large-scale farming operations involving considerable mechanization have been developed, which are in contrast to the methods used by the small farmer-producer in most Asian countries. However, the Honourable Ralph Hunt stressed that plant protection is equally as important to the small farmer as it is to the large-scale producer. Any increase in plant pests and diseases within a country means less efficiency in production.

11. The Minister said that all the countries share the need to ensure that, through effective plant quarantine measures, no diseases or pests are introduced, and that, through efficient plant protection measures, losses from plant pests and diseases are minimized. The Honourable Ralph Hunt declared that there is abundant scope for countries within the Region to assist each other and work together in the spirit of cooperation for mutual benefit. In this endeavour, Australia would do its best. The future can hope to prosper only through cooperative efforts and sharing of resources.

12. Mrs. Anna R. Malhotra of India, responding on behalf of delegates and observers, expressed the appreciation and gratitude of the participants and their governments to FAO and to the Government of Australia, particularly to the Minister of Health, for convening the Session in Canberra and for the excellent arrangements, provision of facilities and for arranging the field trips.

13. The Committee was happy to note that Dr. T.H. Harrison, former Director of Plant Quarantine, Australia, could come to the Session. Dr. Harrison was closely associated from the initial stages of the concept of the Committee and had been a very active member and a strong supporter of the Committee till his retirement in 1966. The Committee was appreciative of his presence and for briefly addressing the participants.

14. The Committee also acknowledged the association and contribution of Mr. M.S. Harahap, Indonesia, with the Committee, who retired as Director of Plant Quarantine in August 1975 and welcomed his successor Mr. Hamzah Purakusumah.

Acknowledgements

15. The Committee expressed its appreciation and gratitude to the Department of Health, Mr. J.R. Morschel, the Director of Plant Quarantine and his colleagues, particularly Mr. Peter J. Setchell, Liaison Officer of the Session, and Mr. Brian Gwynn-Jones, Publicity Officer and the Staff of the Plant Quarantine Service, especially those at Plant Quarantine Research Station at Weston, for making excellent arrangements and for the provision of facilities. The Committee also thanked all the Secretariat Staff of the host Government for their excellent support and assistance.

16. The Committee also expressed its gratitude to the Executive Secretary of the Committee, Dr. D.B. Reddy and to Dr. Alvin K. Chock of FAO for the excellent manner the Session proceedings were organized and conducted. The Committee was fully aware that Dr. Reddy's attendance was at some personal inconvenience.

II. PARTICIPATION AND ORGANIZATION

Delegations of Participating Governments

Australia

J.R. Morschel	Assistant Director-General (Plant Quarantine) Department of Health Canberra, A.C.T.
A.C. Catley	Scientific Officer (Plant Quarantine) N.S.W. Department of Agriculture Sydney, N.S.W.
Max F. Day	Acting Chief Division of Forest Research C.S.I.R.O. Canberra, A.C.T.
Kenneth Dillon	Principal Plant Quarantine Officer Department of Health Canberra, A.C.T.
Graeme Evans	Director of Biology N.S.W. Department of Agriculture Rydalmere, N.S.W.
Brian Gwynn-Jones	Quarantine Information Officer Department of Health Canberra, A.C.T.
W.C. Kevin Hammer	Assistant Secretary Food Services Branch Department of Primary Industry Canberra, A.C.T.
Thomas W. Hogan	Principal Entomologist Victorian Department of Agriculture 100 Riversdale Road Hawthorn, Victoria 3122
W. Horrigan	Acting Chief Entomologist General Crops and Inspection Service Branch Department of Primary Industry Canberra, A.C.T.
Peter T. Jenkins	Principal Plant Pathologist Victorian Plant Research Institute Burnley, Victoria
John R. Merton	Principal Executive Officer Food Services Branch Department of Primary Industry Canberra, A.C.T.
Sam J. Navaratnam	Plant Quarantine Officer Department of Health Canberra, A.C.T.

Allan Seberry	Assistant Principal Horticulturist (Research) N.S.W. Department of Agriculture Sydney, N.S.W.
Peter J. Setchell	Administrative Officer for Assistant Director-General (Plant Quarantine) Department of Health Canberra, A.C.T.
G.T. Sibley	Scientific Services Officer and Secretary of the Plant Production Committee of the Standing Committee on Agriculture C.S.I.R.O. Canberra, A.C.T.
Lance Smee	Principal Plant Quarantine Officer Department of Health Canberra, A.C.T.
J.T. Snelson	Pesticides Coordinator Food Services Branch Department of Primary Industry Canberra, A.C.T.
	India
Mrs. Anna R. Malhotra	Joint Secretary Ministry of Agriculture Krishi Bhavan, New Delhi-1
	Indonesia
Hamzah Purakusumah	Director Plant Quarantine Department of Agriculture Jalan Salemba 16, Jakarta
	Malaysia
Wan Mohd. Don	Director Crop Protection Division Department of Agriculture Kuala Lumpur
	New Zealand
Lewis Gordon Morrison	Deputy Director (Plant Health) Ministry of Agriculture Wellington
	Pakistan
S.A.S. Sayed	Second Secretary Embassy of Pakistan Canberra, A.C.T.

Philippines

Salvador R. Merino	Chief Plant Quarantine Section Bureau of Plant Industry Manila

Thailand

Riksh Syamananda	Director Plant Pathology Division Department of Agriculture Bangkhen, Bangkok-9
Tanongchit Wongsiri	Director Entomology and Zoology Division Department of Agriculture Bangkhen, Bangkok-9
Adul Worawisitthumrong	Director Agricultural Regulatory Division Department of Agriculture Bangkhen, Bangkok-9

United Kingdom

United Kingdom

Brian Shorney	First Secretary (Agriculture and Food) British High Commission Canberra, A.C.T.

Brunei

Kassim Bin Ahmad	Assistant Agricultural Officer (Crop Protection) Department of Agriculture Bandar Seri Begawan
W. Trevor H. Peregrine	State Plant Pathologist Department of Agriculture Bandar Seri Begawan

Western Samoa

Terry V. Bourke	Entomologist (FAO) P.O. Box 1174 Apia

Observers

Australia

W. Bailey	Division of Entomology C.S.I.R.O. Canberra, A.C.T.

B. Champ	Division of Entomology C.S.I.R.O. Canberra, A.C.T.
G. Fewster	Assistant Secretary Department of Primary Industry Canberra, A.C.T.

Papua New Guinea

Fred Dori	Entomologist Department of Agriculture Stock & Fisheries Bubia Via Lae, Morobe Province
Greg K. Graham	Assistant Director (Agriculture) Department of Agriculture Stock & Fisheries Konedobu, Port Moresby
John S. Tilip	Chief Quarantine Inspector Department of Agriculture Stock & Fisheries Konedobu, Port Moresby

South Pacific Commission

Ivor D. Firman	Plant Protection Officer South Pacific Commission P.O. Box 2119 Suva, Fiji

FAO Staff

D.B. Reddy	Regional Plant Protection Officer and Executive Secretary of the Plant Protection Committee FAO Regional Office for Asia and the Far East Bangkok-2, Thailand
Alvin K. Chock	Plant Quarantine Officer Plant Protection Service Plant Production and Protection Division FAO, Rome, Italy

OFFICERS OF THE SESSION

17. J.R. Morschel (Australia) was elected Chairman of the Tenth Session of the Plant Protection Committee. The Committee also designated Dr. Riksh Syamananda (Thailand) as Vice-Chairman of the Session. Dr. D.B. Reddy (FAO) served as Executive Secretary.

SUB-COMMITTEES

18. One Drafting Sub-Committee and two Technical Sub-Committees were appointed to serve during the Session, as follows:

Drafting Sub-Committee

19. Max F. Day (Australia), Chairman; Greg K. Graham (Papua New Guinea); W.C.K. Hammer (Australia); Mrs. Anna R. Malhotra (India); L.G. Morrison (New Zealand); S.A.S. Sayed (Pakistan); D.B. Reddy (FAO), Secretary.

Sub-Committee to Consider Regulatory Measures and Special Problems in Plant Quarantine

20. L.G. Morrison (New Zealand), Chairman; A. Catley (Australia); A.K. Chock (FAO); K. Dillon (Australia); S.R. Merino (Philippines); W.T.H. Peregrine (Brunei); Hamzah Purakusumah (Indonesia); L. Smee (Australia); J.S. Tilip (Papua New Guinea); Adul Worawisitthumrong (Thailand); J.S. Navaratnam (Australia), Rapporteur.

Sub-Committee to Consider Special Plant Protection Problems

21. Anna R. Malhotra; Ms. (India), Chairman; Kasim B. Ahmad (Brunei); T.V. Bourke (Western Samoa); F. Dori (Papua New Guinea); G. Evans (Australia); I.D. Firman (South Pacific Commission); W. Horrigan (Australia); J. Merton (Australia); D.B. Reddy (FAO); G.T. Sibley (Australia); J.T. Snelson (Australia); Tanongchit Wongsiri (Thailand); Wan Mohd. Don (Malaysia), Rapporteur.

III. STATUS OF THE PLANT PROTECTION AGREEMENT

22. The Committee welcomed Bangladesh and New Zealand as new members of the Committee. The status of the Agreement at the time of the present Session was as follows:

Country	Date of Signature	Date of ratification	Date of Adherence	Date of acceptance of amendments to Article 1(a)*
Australia	27.2.56	Not required		17.7.69
Sri Lanka	27.2.56	Not required		28.1.69
United Kingdom	29.3.56	3.12.56		31.12.68
People's Democratic Republic of Laos	25.5.56	17.3.60		20.8.68
Indonesia	28.6.56	21.12.67		
Portugal	2.7.56	Not required		27.1.69
Republic of South Vietnam	2.7.56	Not required		
India	2.7.56	Not required		11.4.69
Thailand	-	-	26.11.56	6.6.69
France	-	-	20.8.57	
Malaysia	-	-	20.11.57	6.3.69
Pakistan	-	-	8.1.58	9.6.69
Burma	-	-	4.11.59	
Philippines	-	-	11.6.62	13.11.69
Nepal	-	-	12.8.65	4.6.69
Cambodia	-	-	27.1.69	27.1.69
Fiji	-	-	16.12.70	16.12.70
Western Samoa	-	-	23.12.71	23.12.71
Bangladesh	-	-	4.12.74	4.12.74
New Zealand	-	-	17.12.75	17.12.75

* The amendment to Article 1(a) entered into force for all contracting governments on 16 August 1969 (i.e. on the thirtieth day following acceptance by two-thirds of the contracting governments as provided for in Article XI-4 of the Agreement).

IV. THE EXECUTIVE COMMITTEE

- REPORT BY THE EXECUTIVE SECRETARY -

23. The Executive Committee held its eleventh meeting on 8 February 1976 at Burgmann College, immediately prior to the Tenth Session. Mr. J.R. Morschel (Australia) chaired the meeting, while Mrs. Anna R. Malhotra (India) and Dr. Riksh Syamananda (Thailand) attended as members. The Executive Secretary, Dr. Reddy, acted as the Convener. Dr. Alvin K. Chock, FAO, also attended the meeting.

24. The Committee considered the report of the Executive Secretary as presented in document PPC:SEAP/76/6/5 and the supplementary information provided during the Session. The programme and activities of the Committee, as reviewed by the Executive Committee, are reported briefly in document PPC:SEAP/76/6/6.

25. The Committee endorsed and approved the recommendation of the Executive Committee that the responsibilities and scope of functions of the Executive Committee should be enlarged to ensure an effective implementation of the Resolution of the FAO Regional Conference (1974) that the Committee should be organically and functionally linked with the FAO Regional Conference. It also approved the change of the designation of the Secretary to that of Executive Secretary.

26. The Executive Committee considered in detail the different items and activities included in the Executive Secretary's Report and commended it to the Session for careful consideration. As 1976 happened to be the twentieth year of the existence of the Committee, the Executive Secretary reviewed the various activities and achievements of the Committee during the past two decades in his Report, captioned "Twenty Years of Progress". The Executive Committee commended the Executive Secretary for his initiative and requested that this document be updated and issued for general information.

27. The main activities carried out by the Executive Secretary are summarized below:

a) the Information Service of the Committee was maintained in the form of Quarterly Newsletter, Technical Documents and Information Letters. So far, 101 Technical Documents, 107 Information Letters and 18 volumes of Quarterly Newsletter have been completed. The distribution for these is about 400 for each category;

b) assistance was provided in organizing and encouraging training programmes and the Executive Secretary also participated in some courses;

c) the host list of diseases, pests and weeds of mango was revised and circulated to Member Governments;

d) assistance was provided in the identification, formulation, planning and implementation of projects in plant protection in several countries of the Region. The list of countries for which projects have been formulated indicated that a comprehensive survey of the existing situation had been made;

e) eleven regional projects had been initiated, some of which are in operation and others in pipeline and under consideration;

f) efforts are being made to establish a procedural functional link between the Committee and the FAO Regional Conference;

g) efforts were continued to find means of securing finances for the Committee;

h) action was initiated to convene a technical meeting in Japan on container shipping, but the meeting could not be held due to inadequate response to the invitation to the meeting;

i) information was collected, collated and circulated on publications and periodicals, plant quarantine procedures and treatments, and plant quarantine authorities in the Region;

j) under the regional consultancy service, several consultancies were organized and out of a total of 24 FAO regional reports, 12 reports pertain to plant protection;

k) an expert panel on pest, disease and weed problems in rainfed crops was organized and the Report of the Panel and the Reviews on pests, diseases and weeds (254 pages) were edited and issued, in addition to the two panel meetings organized earlier;

l) the Executive Secretary participated in initiating and organizing regional seminars on different aspects of plant protection and also cooperated with several other agencies. The Executive Secretary, during the last two years, also acted as the Regional Plant Production Officer and Secretary of the Regional Conference.

28. The Committee considered and appreciated the role and work done by the Executive Committee. The Committee also appreciated the services rendered by the Executive Secretary in executing the programme and activities of the Committee and servicing the Executive Committee.

V. IMPLEMENTATION OF THE AGREEMENT

- SUMMARY OF STATEMENTS BY PARTICIPANTS -

Australia

29. Post-entry quarantine facilities have been established around Australia and are now fully operational at strategic ports of entry. The establishment of a Plant Quarantine Research Station in Canberra has been a major asset for resolving specific problems.

30. Considerable interest exists in the use of ethylene oxide as a quarantine treatment. Gamma radiation had been accepted as a treatment for used bags. Container transport continues to attract considerable attention, with several problems, such as fumigation of commodities in containers, requiring solution.

31. The fourth International Course on Plant Quarantine was conducted early in 1974 for participants from sixteen countries. The second course in general plant protection was held in 1975.

32. The entry of poplar rust illustrated clearly that effective plant quarantine for complete success is as dependent upon public co-operation as the efficiency of the services.

33. Oriental fruit fly (Dacus dorsalis) was recently detected in Northern Australia. An extensive survey for this fruit fly is being undertaken within the Northern Territory and parts of Queensland. Monitoring for other exotic fruit flies has also been initiated.

34. A project aimed at providing the Australian fruit industry with a source of fruit trees with a degree of virus freedom is being developed. With the establishment of the Fruit Variety Foundation (fvf) for vines, stone fruits, citrus and pome fruits, it is anticipated that these industries will ultimately benefit considerably.

35. Stored product pests are receiving increasing attention, particularly in respect of resistance to insecticides. A concerted effort is being made in all States to combat grain storage pests by increasing agricultural extension activities and instituting more regular inspections of storage premises and commodities.

36. Fruit commodity treatments have been under intensive investigation to satisfy internal quarantines as well as to permit Australian fruits to be exported to additional markets.

37. A major effort has been sustained thrcugh the Co-ordinating Committee of Agricultural Chemicals to minimize pesticide residues throughout the country. This has been significantly successful and no problems have been encountered with exported primary products.

India

38. Legislative measures under consideration in India include the replacement of the existing "Destructive Insects and Pests Act, 1914" by a "Plant Quarantine Act", and some amendments to the Central Insecticides Act. The former measure will ensure a more effective check on the import of plant material into the country and also within the country. The Disembarkation Card for international air and sea passengers has been revised to include a declaration of plants and plant materials. Several training courses in plant quarantine objectives and techniques have been arranged for Customs and Central Excise Officers, and about 540 officers have already been trained.

39. A Central Insecticides Laboratory has been proposed. Facilities in the Central Plant Protection Training Institute at Hyderabad have been strengthened with FAO/UNDP assistance. This Institute, when fully strengthened, will be in a position not only to meet the training needs of the country, but also that of the Region.

40. To advise on measures to control rodents, a Central Rodent Advisory Board was established in 1974. Similarly, Rodent Control Committees are being organized in several states. Short and long term plans for rodent control prepared by an expert group set up by the Central Board are in various stages of implementation.

41. Under a special scheme for marginal farmers, subsidies for inputs, including pesticides, have been given to about 2.5 million farmers. Under another centrally sponsored scheme for assistance to control endemic pests, special programmes have been formulated for control of pests which have recently assumed alarming proportions, such as the brown plant hopper on rice, white grubs, rodents, midge on sorghum and apple scab. Of these, the incidence and spread of the brown plant hopper in almost all the rice growing areas, is causing serious concern, requiring special measures.

42. Several new surveillance stations and outposts have been opened. Operational research projects on integrated control of cotton and rice pests have been started. Though, aerial spraying of pesticides continues to be used substantially, there has been some decline in the coverage recently.

Indonesia

43. As a result of a re-organization initiated in 1974, several changes have been made in the Department of Agriculture. The Plant Protection Service, now known as the Directorate of Plant Protection is under the Directorate General of Food Crops Agriculture. The Directorate of Plant Quarantine is a part of the new Agency for Agricultural Research and Development.

44. A Decree (23 Aug. 1975) from the Minister of Agriculture provides that all import permits for prohibited plants and planting material shall be issued only by the Minister of Agriculture. The Decree governing the importation of plants, planting material, packing material, plant products, soil and biological agents is awaiting the approval of the Minister. This Decree would replace the existing regulations and meet the current national needs as well as conform to the Committee's recommendations.

45. In August 1975, khapra beetle was found in imported rice in South Sumatra. Following eradication of this pest, surveys are being conducted in South Sumatra and Jakarta in close co-operation with BULOG, the government rice agency. It is planned to conduct surveys to determine the occurrence of certain pests and diseases of limited distribution for reviewing the existing domestic quarantines.

46. The training of plant protection personnel at different levels has been organized regularly, almost every year. Several plant quarantine inspectors have attended training courses in New Zealand, Australia and Denmark.

47. Destruction by rats, borers, gall midge, plant and leaf hoppers, tungro, grassy stunt, blast, brown spot and sheath spot has limited rice production in certain areas. Efforts to minimize losses have been based on integrated control. Grass hoppers (Austrachis guttulosa) have continued to cause damage to rice, corn, and pulse crops in Sumba. The extremely long dry period in 1972 followed by low rainfall for two years resulted in a widespread outbreak of Colletotrichum secondary leaf fall throughout Java. This defoliation caused a yield loss of 7 to 45 per cent in West Jav.

48. Severe damage was caused to coconut plantations in West Java and Lampung in 1975 by the outbreaks of the coconut leaf moth (Artona catoxantha). The longhorned grasshopper (Sexava karnyi) continued to cause damage to coconuts in Togean Island and Central Sulawesi.

49. The Pesticide Decree was promulgated on 17 March, 1975. The Pesticide Committee, an interdepartmental advisory board to the Minister of Agriculture, had started to receive applications for pesticide registration. A number of research institutes, universities, and other agencies have been designated by the Committee to evaluate the efficacy and toxicity of pesticides.

50. An FAO/UNDP project to strengthen the plant protection service is awaiting signature by the Government.

51. Three prefabricated post-entry quarantine greenhouses have been constructed under the Australian Plant Quarantine Aid Programme (initiated in 1972) at Bogor, Medan and Ujung Pandang. The assistance of short term consultants was made available in 1974 and 1975. Inspection of imported plant material is being conducted at these quarantine stations.

Malaysia

52. An FAO/UNDP project to strengthen the Crop Protection Services of Peninsula Malaysia was initiated in 1973. The project involves the establishment and strengthening of five regional centres, a new complex at the headquarters in Kuala Lumpur, FAO expert staff, study tours and short overseas training for the local staff and improvements in staffing and facilities.

53. The Pesticide Act was introduced in 1974 and preparations for its implementation are in progress. The Agriculture Pests and Noxious Plants Bill (1975) has been passed by both the houses of parliament and is awaiting royal consent.

54. Nematodes (Meloidogyne spp. and Radopholus spp.) have been introduced in newly planted pepper areas away from the traditional pepper areas of Johore. Measures are being considered to prevent their further spread.

55. Cordia cylindristachya, which was introduced as a hedge plant in Tanjong Karang, has now become a major weed in newly replanted coconut areas. Biological control has been suggested by an FAO expert. The subject is being further discussed between the Department of Agriculture, Malaysia, and United Kingdom.

56. Plutella xylostella has been a very serious problem for many years. At present, biological control is being attempted with the assistance of FAO.

57. Damage by rats (Rattus argentiventer) is considerable in the main rice growing areas in Malaysia. Two experts, from FAO and the United Kingdom, made a study of the problem as a result of which a pilot project on rodent control is being formulated for Krian area.

58. A crop protection workshop in which the Department of Agriculture, the University of Malaysia, the Agricultural University, the Rubber Research Institute, the Malaysian Agricultural Research Development Institute and the FAO/UNDP personnel participated, was held in Kuala Lumpur. The workshop was very useful and the relevant recommendations are being followed up.

59. A World Bank loan has been approved for extension services, while one for a seed project is being negotiated. Crop protection is included in both these projects.

New Zealand

60. The plant protection organization has continued to increase in strength and efficiency. The uniformed Port Agriculture Service now has 123 officers manning the international airports and 15 points of entry for people and produce. All ports have incineration

facilities and most have one or more fumigation chambers for methyl bromide. The three diagnostic laboratories now have a staff of 30 who handle more than 7,000 consignments annually. Fifty two horticultural inspectors and 73 advisory assistants are now regularly involved in field surveys of pests and diseases under the general guidance of diagnostic staff and 169 farm and horticultural advisory officers maintain a liaison between diagnostic staff and their farmer clients.

61. A diagnostic "clearing house" has been established to which all records of suspected new pests/diseases are promptly reported and which are immediately evaluated. More than 20 officers have also been trained as "co-ordinators" to supervise emergency programmes to contain and eradicate incipient infestations of new pests/diseases. Information personnel have contributed to greater public awareness of plant health situations through regular news releases and publications.

62. No new plant quarantine legislation or regulations have been promulgated in the last two years but revision of existing legislation continues. A major effort has been to review all plant and animal quarantine requirements for imported seeds, their rationalization and then publication of the summary of requirements in an official gazette notice. This statement has been of benefit to all those involved with trade in seeds. Most important has been the depositing of an instrument of adherence to the Plant Protection Agreement for the South East Asia and Pacific Region on 17 December 1975.

63. The special problems with exports are that the importing countries tend to be slow in informing exporting countries of changes in requirements. They too often fail to observe the International Plant Protection Convention's requirement to report back when a consignment had been found faulty and needed treatment, and imposition of total bans following reports of new pests/diseases of very limited and localized occurrence.

64. Contamination of plant produce with weed seeds, introduction of aquatic plants with weed potential, which are particularly dangerous in hydro-electric and drainage situations, and failure of some sections of the community to appreciate that disease risks are associated with propagative material even when intended for research and other special purposes are some of the problems encountered in imports.

65. In respect to international aid in plant protection, New Zealand is concerned that some countries prefer to look to sophisticated and often expensive solutions when cheap and simple solutions would often be perfectly adequate. It has also been observed that some countries fail to recognize that some problems, particularly in grain storage, which on the surface appear to be technical in nature, in reality, arise from administrative or political factors.

Pakistan

66. In conformity with the recommendations of the Committee, the existing plant quarantine rules and regulations have been strengthened. The importation of certain plant materials is now restricted, and import permit conditions and post-entry examinations apply to 24 additional items. All exported plant and plant materials are carefully examined for khapra beetle and other storage pests, and are treated when necessary before issuing phytosanitary certificates. Sixteen commercial firms have been approved by the Government to undertake fumigation under the supervision of the plant quarantine staff.

67. "The Destructive Insects and Pests Act, 1914" is being replaced by "Pakistan Plant Quarantine Act, 1975". In order to provide up-to-date and complete information about quarantine regulations, procedures, and techniques, a plant quarantine manual is being prepared.

68. Cotton, rice, and sugarcane are the most important crops in Pakistan. Borers (Tryporyza incertulas, T. innotata and Sesamia inferens) have caused damage up to 30% in rice. Ground and aerial operations were conducted against the major pests of cotton.

Several diseases of wheat, rice, maize, sugarcane, cotton, tobacco, citrus, apple, peach, and mango were frequently recorded and were noted to cause variable damage at certain places.

69. The American bollworm (Heliothis armigera), earlier not been recorded as a pest of apple, caused moderate to heavy damage to apple plantations in the Quetta valley of Baluchistan. The attack was sporadic, but heavy infestations were observed in Kirani, Chashma and Malik Yar areas in the Quetta District, the percentage of infestation varying between 14.4 to 21.4.

70. Poor storage conditions in most of the rural areas account for heavy damage from storage pests. Fumigation of grain godowns with EDCT, methyl bromide or phostoxin is conducted to control the pests of stored grain.

71. In-service training in inspection procedures, pest and disease identification and treatments has been provided to both the new and existing inspectors and technical assistants. Additional courses are planned.

72. Government has also instituted a network of plant protection service for small farmers. The plant protection staff provides the farmers with technical knowledge, pesticide and equipment, including liberal subsidies on pesticides and equipment. Under emergency conditions of a widespread occurrence, aerial coverage is provided to important crops like rice, sugarcane and cotton.

73. A fleet of 9 Beaver Aircraft were used on 3.08 and 3.95 million spray acres during 1972-73, 1973-74 and 1974-75, respectively. It is envisaged to provide 100% coverage to suitable compact areas under rice, cotton and sugarcane from 1975-76 onwards.

74. Locust has been successfully controlled over 5,000 square miles in Cholistan and 1,000 square miles in Khairpur deserts. Also a large scale locust invasion in the cultivated areas of the Indus Valley was checked. Twelve locust outposts operate permanently. Several emergency sub-outposts equipped with locusticides are established, whenever necessary.

75. With the assistance of FAO/UNDP, a project on rodent research and training is in operation.

Papua New Guinea

76. Papua New Guinea is free from a number of main diseases of its principal export crops, and all efforts will be made to preserve this situation. As an example, coffee has become a very important crop to the small highland farmer but the introduction of coffee rust from neighbouring countries could well destroy this industry.

77. A strong quarantine service was continued to be maintained and in 1975, this service was re-organized to establish it as a separate entity and to provide a basis on which a more meaningful and professional service could be established. The quarantine service is still in what is now the Agriculture Branch of the Department of Agriculture, Stock and Fisheries, to enable it to have direct access to Plant Pathology and Entomology Sections.

78. While quarantine against imports is reasonably effective, the internal quarantine barriers are weakening. As a result, the Giant African snail is likely to become established virtually throughout the lowlands area.

79. A check-list of diseases occurring in Papua New Guinea has been published and a revised edition is almost complete. Furthermore, the East-West Center in Hawaii will shortly publish a book on the insect pests of Papua New Guinea.

80. Insect pests which have assumed major importance in recent years, include Locusta migratoria and Leptocorisa spp. The drought of 1972 was responsible for triggering the locusts from the solitary to gregarious phase in the Markham-Ramu valley system. The increasing development in this area, particularly with cattle, appears to be perpetuating the problem.

81. There have been two major developments in the last few years. Firstly the government's stated policy of import replacement had accentuated efforts on annual food crops requires more sophisticated management than many small farmers are capable of. Therefore, it was found necessary to examine alternative management systems which may not be as totally productive, but can be easily adapted by farmers.

82. Probably the most significant recent development in Papua New Guinea in relation to plant protection is that in 1975 the first national agricultural and science graduates entered the Department of Agriculture, Stock and Fisheries.

Philippines

83. The Committee recommendations on measures for regulating importation and movement of plant materials, whenever practicable, have been adhered to or implemented. Domestic movement of citrus, coconut, abaca, coffee, fruits and vegetables, corn, orchids, ornamentals, potato, sugarcane, soybean, tobacco, etc. are subject to various restrictive measures.

84. A plant quarantine manual for inspectors is now being finalized.

85. On requests from exporters and importers, fumigation of empty containers, based on the treatment schedules (usually 5 lbs methylbromide for 20 ft x 8 ft x 8 ft container) at the point of entry has been carried out. Fumigation of coffee beans inside the cargo vans has also been undertaken. Treated containers are aerated before they are sealed.

86. Post-entry quarantine of restricted plants is done at the South Port of Manila compound or at an approved research facility. Expansion of post-entry quarantine facilities is proposed under the FAO/UNDP strengthening plant quarantine project.

87. The crop damage and losses caused by rodents on cereals, sugarcane, coconut and stored products have been averted through the joint efforts of the Rodent Research Institute, the BPI and the UPCA.

88. The detection and control of plant viruses, particularly on high yielding rice varieties, has been achieved through the joint efforts of the International Rice Research Institute (IRRI), University of Philippines' College of Agriculture (UPCA) and the Bureau of Plant Industry (BPI). Rice hybridization work on tungro and grassy stunt resistant varieties, and the control of virus diseases through vector control by chemical spraying have also been successful projects. Extensive studies on maize breeding for resistance to the downy mildew have also made significant headway.

89. Research studies on the identification of the newly discovered 2 or 3 biotypes of the brown leafhopper (Nilaparvata lugens) on the latest high yielding varieties of rice are being undertaken. A programme for direct seeding 500,000 hectares of rainfed rice is to commence in May 1976 with the arrival of the early rains. A recommended insect/weed control guide has been prepared for distribution throughout the target areas.

90. The Philippine Government has accepted the maximum residue limits (MRL) of the Codex Alimentarius Commission (C.A.C.). A pesticide residue laboratory has been established initially with four units for gas chromatography. Ultimately 12 units are to be provided. A pesticide formulation control laboratory to assist implementation of pesticide rules and regulations is under consideration.

91. Training in plant protection is a continuing programme of the Department of Agriculture. A two-storey training centre for farmers and technicians is under construction at the Maligaya Rice Research Training Centre.

92. An FAO/UNDP Locust Research and Training Centre project has been approved in principle.

93. The FAO formulated project for strengthening plant protection service, which was approved in principle, is now being implemented under the Philippine-German plant protection assistance programme. The FAO Regional Office assisted in the formulation and finalization of the plant quarantine and locust projects.

South Pacific Commission (SPC)

94. The South Pacific Commission has a work programme in agriculture, including plant protection. The Commission also serves as a regional channel of co-operation with such organizations as FAO.

95. Attention was drawn to the past activities of SPC in plant quarantine and plant protection, with special mention being made of the rhinoceros beetle project, some of the work and publications concerning quarantine legislation, and pest and disease distribution in the Pacific islands.

96. After several years without a Plant Protection Officer, the SPC in 1974, once again made such an appointment. This is indicative of further recognition of the importance of plant protection in the Region.

97. It was important that the work of SPC, the FAO and other projects in the Region should take into account the rather limited number of plant protection specialists in the islands. A case could be made for a fairly large scale project for "Strengthening Plant Protection Services", because without it there can be little follow-up locally from completed projects.

98. Some of the activities of SPC were described. A full account of the past, present and possible future work of SPC in plant protection is planned to be published in the South Pacific Bulletin.

Thailand

99. Following the re-organization of the Department of Agriculture in 1974 the Plant Quarantine section was incorporated into the Agriculture Regulatory Division. This Division is also responsible for fertilizers, pesticides and plant germplasm control.

100. One refresher course for key Plant Quarantine Inspectors, one course in Fumigation Techniques and two courses in Locust Control were organized by the Agriculture Regulatory Division, Plant Pathology Division, and Entomology and Zoology Division, respectively, in co-operation with FAO Plant Protection Project.

101. Thailand participated in the First Meeting of the Technical Committee on South American Leaf Blight (SALB) of the Association of Natural Rubber Producing Countries (ANRPC) in Sri Lanka to promote regional co-operation. It also actively participated in the work of the Codex Alimentarius Commission, particularly in the collaborative study of residue analysis. The preliminary report of this study was presented at the 8th Session of the Codex Committee on Pesticide Residues.

102. Thai plant pathologists and entomologists participated in the FAO Regional Panel of Experts on Diseases and Pests of Some Selected Rainfed Crops in Asia and the Far East held in Bangkok in 1975.

103. Rodent research and training are being strengthened with the aid of the West German Government. This includes expertise, training and equipment over a four year period.

104. New facilities for seed pathology research and routine seed health inspection were provided by the FAO/UNDP Plant Protection Project. During Phase I of the project, additional consultants on nematology, insect transmission of plant viruses, Phytophthora soil-borne disease, acarological aspects of plant quarantine, and pesticides research were assigned to strengthen the work being done in the five sections. These research results are published in the Plant Protection Service Technical Bulletins. Twenty-three issues have already been issued and 11 more are in preparation or in press.

105. Phase II of the FAO Plant Protection Project has been approved, for a five year period beginning in 1976. Special attention will be given to field control of pests and diseases and close cooperation with the Extension Department and farmers.

106. Attempts to lessen the hazards from excessive use of pesticides are being made by resorting to biological control agents such as Bacillus thuringiensis and polyhedral virus. These are being used to control vegetable insects (e.g., diamond back moth, cabbage looper) and cotton bollworm.

United Kingdom; Brunei

107. Brunei agriculture is subsistence, and there are no estate crops, although there are concentrations of small holders growing vegetables and rice.

108. Plant legislation formulated in 1970 was enacted in 1973 and rules have been published. Legislation to control pesticides usage and import is currently being drafted.

109. Co-operation with the Customs is excellent. Fortunately there are only two entry points. There are at present two produce inspectors and two more are being recruited. In 1976, it is proposed to build a quarantine greenhouse which will permit a widening of plant imports for agricultural development.

110. An integrated research centre has been approved which will be completed within two years. All the specialists - plant pathologist, soil scientist, entomologist and agronomist will work at this centre.

111. Anthracnose (Colletotrichum lagenarium) in watermelons is controlled with chemicals and the growing season has been extended by 3-4 months. Improvement in cultural practices and control of melon fruit fly (Dacus cucurbitae) have markedly improved the quality of the produce.

112. Rice scald (Rhynchosporium oryzae) is increasing in Brunei. The effects of scald are hard to assess but a third of the leaf area can be affected. Fortunately, blast is not a problem in Brunei. Exotic varieties have so far not been released in Brunei. This policy will continue as yields of local varieties can be improved considerably through better culture and pest and disease control.

113. With the increasing pepper planting programme, some work on the chemical control of foot rot, using systemic fungicides is contemplated.

114. The plant pathology section is responsible for all plant introductions and initial agronomic assessment. A small seed testing laboratory, which ensures that the seed given out by the Department to farmers is of good quality, forms a part of the plant pathology section.

115. Plans are well advanced for setting up an agricultural training centre, with courses, including crop protection, scheduled to start in May 1976. Two officers, one for M.Sc. in plant pathology and another for B.Sc. in agriculture, are under training abroad.

Western Samoa

116. Post-entry quarantine facilities are urgently needed to facilitate the importation of improved strains of cacao, coconuts and other export crops. It is hoped that such facilities can be obtained from one of the bilateral aid agencies.

117. The Department of Agriculture, Forests and Fisheries has recently established a Plant Protection Section within the Department. The Section is at present staffed by an Entomologist and one Field Assistant. An FAO Plant Protection Adviser (Entomology) is currently assisting the Section. A Plant Pathologist will shortly join the Section after completing Master's Degree in plant pathology at the University of the Philippines.

118. The major pest and disease problems are Pod rot and canker diseases of cacao (Phytophthora palmivora); Bunchy top disease of banana; Leaf spot diseases of banana (Mycosphaerella fijiensis, Cordana musae); Banana weevil borer (Cosmopolites sordidus) and banana nematodes (especially Radopholus similis) and stored product insects.

VI. MEASURES FOR REGULATING IMPORTATION AND MOVEMENT OF PLANTS

119. The Committee reviewed in detail the previous recommendations on measures for the regulation of importation and movement of plants and related items, which have been summarized in document PPC:SEAP/76/8/8 (Information Letter No. 103).

120. The Committee agreed that no alterations were necessary for the following: Abaca and other Musaceae, Banana, Breadfruit, Cacao, Cashew, Citrus, Clove, Coconut, Groundnut, Lettuce, Oil Palm, Pineapple, Rice, Seed Contaminants, Tea, Tobacco and Tomato.

121. On the basis of developments in pest and disease situations within the Region, the Committee agreed to the addition of pollen and ornamental plants.

122. In addition, several modifications to the recommended measures were made by the Committee.

Biological Control Agents

123. The Committee decided that this section needed amplification and the following two paragraphs are to be added.

124. "Those countries that introduce and field release biological control agents should notify the Executive Secretary of the Committee, so that this information can be circulated to other countries in the Region."

125. "Countries without screening facilities are advised to exercise extreme caution in introducing biological control agents from a country which has introduced them from another region. This is particularly important with insects for weed control because the donor country may not have screened them against plants which are of economic importance in a recipient country."

Breadfruit

126. The Committee considered the present position of 'Pingalap' disease of bread fruit and noted that no causal agent had been identified for this disease. In view of the interest of countries in the Region in bread fruit, the Committee decided to retain the present recommendation.

Coffee

127. The Committee expressed some doubt on the validity of the existing recommendation in the second paragraph concerning "an intermediate quarantine station, recognized for this purpose by the Standing Technical Sub-Committee" and decided to delete from this the words "recognized for this purpose by the Standing Technical Sub-Committee" and replaced it with the words "where coffee is not grown."

128. Coffee berry disease (Colletotrichum coffeanum), a destructive disease, is not present in the Region. It was, therefore, decided to commence the third paragraph of this section with the following sentence "Coffee berry disease (Colletotrichum coffeanum) is not recorded in the Region."

Forest Trees

129. The Committee recognized that some important diseases of forest trees could be carried in or with seed and felt that the following sentence should be added to this section. "Seed should be free of extraneous material, treated with a fungicide and fumigated."

Fruits and Vegetables

130. The Committee felt that other pests besides fruit flies may be present and recommended that a new sentence be added to the second paragraph as follows: "There are many other organisms that may be carried on fruits and vegetables".

Giant African Snail

131. The Committee felt that more details were required in this section and agreed that this section should be rewritten as follows: "Special attention is drawn to the danger of introducing, Achatina fulica. This snail may be introduced as adults attached to motor vehicles, machinery, pallets and cargo containers. The movement of military equipment poses special problems. The snail may also be carried as a curiosity by tourists."

132. Adults and eggs may be found in plant material, especially when soil is present.

133. A. fulica is known to be present in most countries in the Region except Australia and New Zealand."

Maize

134. A slight amendment was made by deleting the word "include" and substituting "are".

Orchids

135. This section is reworded as follows: "The Committee noted that the import of orchid plants constitutes a quarantine risk and recommended that orchids should be introduced as seed, seedlings or meristem cultures grown on sterile media, wherever possible."

136. "Orchid plants or bulbs should be free of soil and packed in sterile media, treated on arrival and grown in quarantine."

Ornamental Plants

137. The Committee considered the risks associated with the importation of ornamental plant material. It was noted that many pests and pathogens are common to both ornamental plants and economic crops and recommended that ornamentals should be imported as seed, seedlings or meristem cultures grown on sterile media, whenever possible.

138. Vegetative material should be imported in small quantities only, free of soil and packed in sterile media. This material should be fumigated or treated on arrival to control insect pests and then grown in quarantine to check for freedom from disease.

Pollen

139. The Committee decided that in view of the dangers of introducing diseases and pests with pollen, importation of pollen should be controlled. All imported pollen should be subject to plant quarantine and where pollen is imported for use in plant breeding, plant quarantine should ensure that it is free of extraneous material and is only used under controlled conditions.

Potato

140. Add 'New Zealand' against black wart and potato nematode. Substitute "Potato Nematode" for "Golden Nematode" followed by "Heterodera rostochiensis and H. pallida, now in India, New Zealand, respectively."

141. A two hour soak treatment of potatoes in a 1% sodium hypochlorite solution will destroy all cysts of potato nematode, Heterodera pallida and H. rostochiensis and the eggs they contain. Prior to treatment, it is advisable to wash off as much soil as possible so that the strength of the solution is more readily maintained. After treatment, the potatoes should be rinsed in fresh water and then thoroughly dried.

Soil and Rooted Plants

142. Add "All residual material is to be sterilized before disposal" to the last paragraph.

Soybean

143. This section is to be rewritten as follows: "Since soybean seed is capable of carrying a large number of diseases, including the soybean cyst nematode (Heterodera glycine) as a contaminant, strict quarantine measures should be enforced, including post-entry quarantine."

Sugarcane

144. Certain serious pests (e.g. the beetle, Phytalus smithii), diseases (e.g. leaf scald, Xanthomonas albilineans), viruses, and nematodes (e.g. Tylenchorhynchus martini) are not known to occur in the Region. Other diseases, such as the virus disease "grassy shoot" in India, and a somewhat similar disease in Thailand, and insect pests, are not widely distributed in the Region.

145. Since these pests and diseases may be transmitted in vegetative material, it is recommended that importation of propagative material be limited to small quantities imported by governments for scientific purposes only. In addition, the strictest precautions must be taken by both the exporting and importing governments to ensure that the sets are free from diseases and pests. Proper quarantine safeguards must be taken, and these include a thorough inspection, heat therapy treatment, and adequate intermediate or post-entry quarantine.

146. Retain the second paragraph of earlier recommendation.

Sunflower

147. This section is to be reworded as follows: "Two serious diseases of sunflower, downy mildew and mosaic are seed-borne. Therefore, all importations of seed should be subject to strict quarantine measures, including post-entry quarantine."

Sweet Potato

148. Reword as follows: "No planting material (except seeds and virus-tested material) of the genus Ipomoea should be imported into the Region. This is essential to prevent the introduction of virus diseases which could be most serious in this important food crop. Virus-tested material may not necessarily be free of all diseases, and it is essential that such material be grown in post-entry quarantine."

Taro

149. In first line substitute "taro and other aroids" for "taro and related plants".

Other Matters

Amendments

150. The Committee felt that for future meetings of the Plant Protection Committee, any proposed amendments, deletions or additions should be circulated to member countries in advance, so that the participants can come to meetings adequately prepared.

Treatment Schedules

151. The Committee recommended that full details of treatments specified in the recommendations should be provided. In view of the necessity to keep recommendations and treatment details separate it was decided that a treatment schedule be prepared.

152. Australia has agreed to prepare this treatment schedule for consideration by the Committee.

VII. SPECIAL PLANT PROTECTION PROBLEMS IN THE REGION

(a) Regional Co-operation for the Development and Strengthening of Plant Protection in the Region

153. Encouragement and development of co-operative programmes in plant protection is one of the important functions of the Committee. The Twelfth FAO Regional Conference for Asia and the Far East (1974) resolved that the Plant Protection Committee should be functionally linked with the Regional Conference and should be the focal point in respect of development of plant protection policies and strategies.

154. The Committee considered the current programmes and projects in the field of plant protection as listed in the document PPC:SEAP/76/6/5 and as discussed by delegates in the country statements and felt that considerable efforts had gone into the study of problems. However, the Committee suggested the following regional programmes, on a priority basis:

i) Strengthening of Plant Protection Services

155. Some countries in the Region have more developed plant protection services than others. However, there are several aspects which need further strengthening. In particular, the need for strengthening the general plant protection services in the South Pacific Region was strongly felt.

156. The Committee strongly recommended that Governments, FAO and other aid agencies should support and assist programmes and projects for strengthening the plant protection services at national, sub-regional and regional levels.

ii) The Problems Associated with Aerial Application of Pesticides

157. The Committee recognized that some serious technical and environmental problems have emerged in countries where aircraft has been used extensively and intensively in plant protection. Since in most countries in the Region, only little use of aircraft in plant protection had been made, the Committee felt that the problems associated with the aerial application of pesticides should be studied on a comprehensive basis, to enable the countries to make policy decisions. The aspects of study should cover effectiveness of the method, economics, alternate techniques, residue and environmental problems, manpower and technical requirements, socio-economic conditions and agricultural practices. In the initial stages, the study should be confined to countries or areas having similar agro-socio-economic conditions.

iii) Weeds and Weed Control

158. Generally, weeds and weed control have not received serious attention in several countries in the Region. The Committee recognized that weeds will be a limiting factor in increasing productivity, particularly in the rainfed areas.

159. The Committee recommended that research, development, extension and training in weeds and weed control should receive urgent attention of Governments and FAO. Special emphasis should be given to the development of non-chemical control methods.

iv) Regional Programme on Vertebrate Pest Control

160. The Committee, recognizing the important role of vertebrate pests in agriculture, recommended that Governments and FAO pay special attention to vertebrate pest control.

v) Regional Co-ordinated Research for the Control of the Rice Gall Midge

161. The Committee urged strongly that the project proposals on the Rice Gall Midge should receive urgent attention and steps should be taken to implement the programme on a priority basis.

vi) Brown Plant Hopper of Rice (Nilaparvata lugens)

162. The Committee was made aware of the widespread serious outbreaks of the brown plant hopper in several important rice growing countries - India, Indonesia, Malaysia, Philippines, Sri Lanka, Thailand and Vietnam. This insect was of minor importance only a few years ago. Moreover, the pest is also the vector of grassy stunt virus. The recent outbreaks of the pest have limited the extension of some of the promising high yielding varieties.

163. The Committee urged that regional co-operative efforts should be directed towards the development of a co-ordinated programme to evolve methods of effective control.

vii) Downy Mildew of Cereals

164. The Committee was particularly concerned with the large-scale serious epiphytotics of downy mildew of maize, sorghum and pearl millet in several countries, particularly in India, Indonesia, Philippines and Thailand.

165. The Committee recognized the urgent need for a regional approach to the problem of downy mildew and urged that a regional programme be developed to deal with this problem.

viii) Interchange of Information

166. The Committee recognized that co-operation for the development of strategy and strengthening of plant protection takes place most effectively at the level of crop protection scientists.

167. The Committee urged the participating countries to encourage the development of strong professional associations and to support technical conferences, seminars, workshops on specific programmes as well as facilitate the exchange of information on various aspects of plant protection, including residues.

ix) Aircraft Disinsection

168. The Committee, having considered recent developments in aircraft disinsection procedures in some countries, recommended that countries should co-operate wherever possible in respect to new procedures and techniques, particularly in the field of transport and treatments.

169. The Committee, recognizing the serious risks of transporting plant pests in aircraft cabins and cargo compartments, recommended that all countries undertake measures to prevent the dissemination of agricultural pests in aircraft. The Committee also recommended that available information be collated and distributed. This should be up-dated as investigations proceed.

x) Publicity

170. Having noted the progress in plant quarantine publicity programmes in the Region, the Committee urged member countries to co-operate wherever feasible in order to achieve these aims.

(b) Consideration of Regional Plant Protection Programmes, with Special Reference to the Recommendations of World Food Conference, World Food Council and FAO ad-hoc Consultation on Pesticides

171. Recognizing the vital role of plant protection in increasing productivity, the World Food Conference, World Food Council, FAO ad-hoc Consultation on Pesticides and the FAO Regional Conference, emphasized the urgency for taking immediate measures for strengthening the plant protection services through national efforts and regional and international co-operation. The Eighteenth FAO Conference (Nov. 1975) generally approved the plant protection programmes and activities and recognized the need for co-ordination through FAO Secretariat.

172. The FAO Regional Conference for Asia and the Far East (1974) recognized that the Plant Protection Committee is the main body in formulating and developing policies and strategies in plant protection in the Region and thus has a co-ordinating role. It also decided that the Committee should be able to assist the Regional Conference in formulating a framework of overall Regional Priority Areas in respect of plant protection.

173. The Committee was cognizant of the current plant protection projects and programmes in the Region and the need for co-ordination at national and regional levels.

174. The Committee recommended that a national co-ordinating mechanism in plant protection should be established in the Ministry of Agriculture or the most appropriate Department.

175. The Committee further recommended that at the regional level, the co-ordination of all plant protection programmes and projects should be effected through a regional mechanism. This regional mechanism of co-ordination should be within the overall framework of the Plant Protection Committee. Any subsidiary bodies to be responsible for a specific project, where designated, should be within the framework of the Plant Protection Committee and should be with the regional co-ordinating secretariat of the Plant Protection Committee.

(c) Consideration of Regional Implications of Recommendations of the ad-hoc Consultation on International Plant Protection Convention

176. Recognizing that the complexity of the subject precluded its detailed consideration at this Session, the Committee recommended that FAO reconvene as speedily as possible the ad-hoc consultation so that outstanding matters may be brought before the FAO Conference in 1977 with a view to their resolution.

177. On the question of phytosanitary certificates, the Committee noted that there was divergence of opinion on the number of certificates but the consensus of countries was that the number of certificates should be kept to the minimum.

(d) Development of Plant Protection Strategy for Small Farmer Development

178. Recognizing that the small farmer is the backbone of agricultural production throughout the Region, it was agreed that every possible attention should be devoted to assisting him to adopt and practise improved methods of agriculture generally and plant protection, in particular.

179. It was also appreciated that plant protection methods will not be adopted nor will they be effective, except within an improved overall agricultural development. This involves the establishment of an adequate socio-economic structure, adequate supporting services, education and extension, and the provision of credit and incentives.

180. Also that until technical and managerial know-how is available and there are storage, marketing and transport facilities, it is unlikely that small farmers will adapt more productive agricultural practices, including plant protection measures.

181. The Committee, however, realizing the urgent need to stimulate and assist small farmers, considered that it is imperative to develop fully integrated agricultural development programmes with appropriate development agencies in each district throughout the Region. Such agencies should include extension officers trained in plant protection to instruct farmers or technically equipped plant protection squads to carry out plant protection measures at the farmers' expense.

182. To ensure that such integrated agricultural development programmes have the benefit of the most suitable technology and skills, it is recommended that:

i) special studies be made of the existing plant protection problems faced by the small farmers;

ii) technology suitable to the needs of small farmers be developed. This would require even a re-orientation and change in the outlook in research approach;

iii) practical on-the-field training, including health and environmental hazards, be arranged for small farmers or the plant protection squads;

iv) communication systems, meetings, radio, television, illustrated materials and other visual aids be developed; and

v) special credit, supply, distribution and marketing facilities for the small and low-income farmers be established.

(e) Integrated Pest Control in Some Rainfed Crops

183. The Committee considered the Report of the Expert Panel on Pest, Disease and Weed Problems in Some Rainfed Crops in Asia and the Far East, and also noted the Reviews on Pests, Diseases and Weeds in Some Rainfed Crops. It commended the efforts of the FAO in organizing the Panel and publishing the Reviews.

184. The Committee agreed in principle that studies as recommended by this Expert Panel are both necessary and valuable.

185. Further, the Committee supported the implementation of the project document annexed to the Panel Report and the recommendations, particularly one and six on a priority basis.

(f) Development of Standard Methods of Inspection and Treatment of Plant Materials in International Traffic

i) Plant Quarantine Manual

186. The Committee noted that progress had been made in some countries in the preparation of a plant quarantine manual and emphasized the need for early distribution of these to plant quarantine inspectors without attempting to attain perfection.

ii) Seeds, Plants, Cut Flowers, Timber and Packaging

187. The Committee felt that it was desirable for countries to develop standard methods of inspection and treatment for commodities subject to quarantine but felt that because of the complexity of the problem, it would be difficult to specify standard methods for each commodity. However, it was recognized that for certain commodities standard methods of inspection and treatment were achievable. In this connection, the Committee recommended that:

a) the plant quarantine authorities liaise with exporters in regard to packaging to facilitate inspection and subsequent quarantine treatment by the importing country;

b) member countries adopt standard methods of inspection and treatment for imported seeds. Attention was drawn to the standard methods of sampling seeds developed by the International Seed Testing Association;

c) the minimum requirements for the import of vegetative material of ornamental plants should be an import permit (which should be endorsed with the conditions for entry), freedom from soil and a thorough inspection. If, insects or diseases are present, treatment must be done. Plants of commercial varieties and those presenting a high risk should be grown in post-entry quarantine;

d) countries should have strict control on the importation of fresh flowers and dried floral arrangements to ensure adequate inspection and treatment, if necessary;

e) all countries should endeavour to export only insect-free timber whether as sawn timber, timber articles, wooden packaging or dunnage; and

f) in view of the risks associated with the import of foodstuffs of plant origin and medicinal herbs, which may carry pests and diseases and some of which may also be capable of propagation, these should be subjected to inspection and treatment, if necessary.

(g) Biological Control of Weeds With Particular Reference to the Experience in Australia

188. Having considered and agreed that weeds can be to a large measure responsible for the low crop yields and are difficult and expensive to control, the Committee stressed the need to determine the economic importance of weeds in specific situations and at various stages of growth of crops and to seek simple and cheap means of control that maximize the yield of crops.

189. The Committee took note of the work done in Australia on biological control of weeds. It recommended that the information on the biological control of weeds together with testing and quarantine procedures should be exchanged between countries of the Region. The Executive Secretary should take whatever steps necessary in this regard.

(h) Registration of Plant Nurseries and the Role of Proposed Fruit Variety Foundation in Australia

190. The Committee, having considered the paper on "Registration of Nurseries and Establishment of Fruit Variety Foundation and Citrus Rehabilitation Programme in Australia", strongly recommended that member countries consider schemes for the establishment of virus tested fruit varieties in order to improve the health status of their important fruit crops.

191. The Committee also took note of what has been achieved in some countries, particularly Australia and New Zealand, in regard to registration of nurseries and drew attention to the distinct advantages of registering nurseries, which helps in the sale of only clean nursery stock.

(i) Investigations in Common Stored Products Pests

192. The Committee recognized the difficulties inherent in both chemical and non-chemical control of stored product pests, including the growing tolerance of pests to existing methods of treatment. The Committee also noted with concern that these problems were often considerably greater at the farm level. Improper application of and storage of pesticides, through inadequate knowledge or training, or lack of adequate instructions on containers, could in some instances pose a health hazard to operators and consumers.

193. The Committee, accordingly recommended that:

i) attention be given to the development at a national level, of guidelines for the safe storage of commodities as part of an overall National Management Plan for Storage;

ii) increased attention be paid to the difficulties of treatment and storage - especially at the farm level;

iii) problems of pests developing resistance to existing methods of treatment be kept under close watch;

iv) FAO revive the Grain Storage Newsletter;

v) a study of storage facilities being used by small farmers in the Region with the object of determining whether any of these facilities can be adopted for general use, through improvement and further development; and

vi) information on the use of airtight storages and artificial inert atmospheres (controlled atmospheres) as control measures be collated by the Executive Secretary and distributed to interested member countries.

(j) A Review on Australian Research on Insect Disinfestation in Fruit and Vegetables after Harvest

194. The Committee discussed the invitational paper on the subject by Mr. Seberry.

195. Recognizing the lack of treatment facilities in some countries and the need for additional facilities in others, the Committee, urged member countries to undertake research and provide adequate equipment in order that their exported produce meets quarantine requirements of importing countries.

196. Recognizing the desirability of avoiding unnecessary duplication of research aimed at developing acceptable commodity treatments, the Committee recommended that importing countries give due recognition to results of this research when undertaken by competent authorities.

197. The Committee also noted the experience of the Philippines in the development of treatments for mangoes for export and of the Inter-Governmental Committee of Australia and Papua New Guinea on fumigation treatments for stored product pests in containers.

(k) Disease Forecasting in Australia

198. The Committee discussed the invitational paper by Mr. Jenkins on "Disease Forecasting in Australia".

199. Realizing the desirability of having a means of disease forecasting and noting the development of such forecasting in Australia, based on correlation of data in weather, and disease outbreaks and severity, the Committee recommended that Governments consider:

i) the preparation of maps showing the occurrence and limits of distribution for each pathogen of economic importance and the areas in which susceptible crops are grown; and

ii) setting up of a committee including a plant pathologist and an agrometeorologist;

a) to assemble information on those diseases for which forecasting systems might be economically feasible;

b) to determine the type of meteorological data and equipment required to provide adequate forecasting systems in relation to the outbreak of plant disease epidemics;

c) to ensure close and continuing co-operation between agrometeorologists and biologists in utilizing the assembled information and in deriving additional data for the development of plant disease forecasting systems.

200. Arising from the discussions, the Committee considered that attention should also be given to the insect pest forecasting.

201. In view of the importance of the movement of insects, particularly in air currents and considered as a hazard to quarantine, the Committee suggested that this subject needs consideration at the next Session.

(1) Plant Protection in Forestry and Forest Products

202. The Committee took note of the experience in Australia and New Zealand on the occurrence of pests and diseases in pine plantations. In view of the fact that an increasing number of countries are developing plantations of quick growing tree species for timber and pulp, the Committee emphasised the need for endorsing its recommendations on the import of forest tree seeds and propagating material.

203. Where pests and diseases are already established, countries should endeavour to maintain an effective plant protection programme including, where feasible, biological control.

VIII. TRAINING

204. The Committee noted steady progress in the establishment of plant protection training facilities. In particular, the offers of India and the Philippines to provide training in plant protection to officials of other countries in the Region were acknowledged. India and Indonesia continued their domestic training programmes for plant quarantine staff. The Committee was also pleased to learn that its recommendation on training of Customs Officers in plant quarantine had received attention and urged that this training should be maintained because the Customs personnel tend to change frequently.

205. The Committee was made aware of the importance of the ultimate user of training and stressed the need to provide training at several levels and in particular at the farmer and farm operative level.

206. In this connection, the Committee stressed the need for proper orientation training for research workers to ensure that the practical problems of farmers are fully understood and that research be directed to solving them. A suggestion was made that groups of selected farmers and farm operatives accompanied by an official as leader, may visit other countries to observe developments in plant protection and other aspects of agriculture. On return, these farmers and farm operatives could become a resource for their particular community.

207. The Committee expressed appreciation of the Australian Government for providing a training course in Plant Quarantine in 1975 for overseas fellows. The possibility of another course in Plant Quarantine in 1977 was welcomed. The Committee also expressed the view that the possibility of a course on Stored Product Pests in Australia be explored.

IX. FINANCES FOR THE COMMITTEE

208. At the Ninth Session of the Committee, it was recommended that FAO explore as fully as possible a basis for the establishment of a Trust Fund for the Region for the purpose of initiating urgent plant protection activities. Informal discussions have been protracted without any positive results. However, in view of the proposed new responsibilities for the Committee envisaged by the FAO Regional Conference, it was of the opinion that FAO should explore expeditiously the possible means of providing financial resources for the Plant Protection Committee along the lines already adopted for the Regional Animal Production and Health Commission for Asia, the Far East and the South-West Pacific; and the Desert Locust Control Committee.

209. The Committee realized that any such financial resources would be used only as a catalyst in initiating promptly urgent action on plant protection at local, national or regional levels.

210. The Committee felt that the proposed fund should be used primarily for emergency action for plant quarantine and plant protection on a selective basis.

211. There are several pests and diseases of great importance whose introduction from outside the Region and the spread of those within the Region to new areas would ruin the economy of certain crops. For example, the South American Leaf Blight, which at present is absent from the Region, can ruin the natural rubber industry, if introduced. Similarly the rice gall midge, if it ever enters Philippines, Japan, Korea or Australia, would seriously affect the rice production. Potato wart and cyst nematode are a threat to the cultivation of potato.

212. The Committee strongly felt that it should have access to funds to finance initial emergency measures for control of outbreaks of plant diseases under emergency circumstances which constitute a potential threat to agriculture of other countries or new areas. Finances should also be available for initial control activities against incipient outbreaks of local pests, and migratory or introduced crop pests creating a major potential threat. These situations requiring financial assistance of this nature, are not uncommon in some less developed countries in the Region. The type of assistance required cannot be predetermined, however, the past experience indicates that the services of a specialist, on a short term but emergency basis, essential materials and equipment, pesticides, etc., are often required at very short notices. The finances may be used in calling together such experts as may be required to advise on, or set in operation, appropriate emergency initial action. There may be other occasions where the Committee may require financial resources to undertake some specific tasks, which normally cannot be done under the ordinary procedures or which might involve time consuming procedures.

213. The Committee also felt that any financial resources that might be made available to the Committee, should be used for the specific purposes determined on the recommendation of the Committee or the Executive Committee. All contributions and donations shall be placed in a Trust Fund administered by the Director-General of FAO in conformity with Organization's Financial Regulations.

214. The best arrangement at present would appear to be for a trust fund voluntary contributions from Committee members or others for specific purposes within the scope of the Agreement. Trust fund arrangements could be made by ad-hoc agreements between FAO and each participating government.

215. Further, it was deemed necessary to indicate the order of annual funding likely to be required. The Executive Committee should give consideration to this matter as well as the mechanism of contribution to the proposed financial resource for the Committee.

216. The Committee was made aware of the availability of the Emergency Fund with the Director-General of FAO for animal disease control and for crop pest and disease control. Because of the nature and the global demands on the Emergency Fund and realizing the limitations in utilizing this Fund for the specific needs of the Committee, it was recommended that separate financial resources should be established for the programme of the Committee. However, the Committee felt that the Emergency Fund should also be utilized as much as practical.

X. PROGRAMME OF THE COMMITTEE

Programme

217. Progress in the implementation of the programme adopted by the Ninth Session was reviewed. In particular the Committee acknowledged the following achievements:

(a) Over a period of twenty years the Committee has moved, from the initial emphasis on plant quarantine, which has been generally strengthened throughout the Region, to an increasing concern about plant protection in response to the recognized urgent need for increased world food production.

(b) To meet this challenge, greater attention had been given to the development and strengthening of plant protection research, training and extension both at national and regional levels, while continuing the due emphasis on plant quarantine.

(c) In addition to the independent national programmes and projects utilizing bilateral assistance, the following projects are currently in operation or planned mainly with the assistance of United Nations Development Programme (UNDP):

i) 13 long term or short term national projects in 11 countries;
ii) 2 Regional projects in operation;
iii) 1 Regional project under active consideration; and
iv) 9 other projects, applicable to the Region, are under consideration.

218. A significant step was taken in September 1975 when an Expert Panel on Pest, Disease and Weed Problems in Rainfed Crops in Asia and the Far East submitted a report on the situation and specific recommendations were made, including a regional project proposal.

219. The following programme, including continuing activities proposed at the previous Sessions of the Committee, were approved by the Committee for the ensuing two years:

(a) maintenance of the information service by means of Quarterly Newsletter, Information Letters and Technical Documents containing information on such items as plant quarantine and plant protection legislation, major outbreaks of pests and diseases in the Region, organization and staff, new records of pests and diseases, latest developments in control practices, inspection and treatment procedures, as well as results of research work on pests and diseases of important food and commercial crops in the Region;

(b) publication of lists of diseases, pests and weeds, affecting important food and commercial crops in the Region, either by review of existing lists or as new compilations;

(c) continuation of the compilation and circulation of lists of periodicals and publications containing information on plant protection issued in the territories of the Region;

(d) continuation of the collection and circulation of information on plant quarantine procedures and treatments adopted by member countries;

(e) advising and assisting member countries in the identification, planning, formulation and implementation of projects on plant protection;

(f) assisting the contracting governments in the planning, development and organizing of training programmes in plant protection and plant quarantine;

(g) co-ordination of activities and projects in relation to plant protection and plant quarantine operated in the Region with the assistance of UNDP and other agencies;

(h) arranging consultant services for contracting governments on special problems of national or regional importance in various aspects of plant protection;

(i) to plan and prepare for enlarged responsibility of the Committee envisaged by the Twelfth FAO Regional Conference, if and when additional FAO staff is made available at Bangkok, specifically for plant protection activities throughout the Region and to ensure that the Twelfth Meeting of the Executive Committee takes place some time before the Eleventh Session if the above proposed development is initiated;

(j) to explore further the possibility of establishing a finance resource, as has been done for other regional technical bodies, specifically to initiate urgent plant protection activities within the Region either at local, national or regional levels;

(k) to promote a speedy convening of the ad-hoc Consultation on International Plant Protection Convention, with the object of finalizing amendments;

(l) to circulate, on a regular basis, results of screening studies carried out on biological control agents introduced within the Region;

(m) to collate information on aircraft disinsection as a preliminary for discussion at the Eleventh Session; and

(n) to request member countries to submit proposed major modifications to the measures regulating the introduction and spread of plants, pests and diseases at least three months before the next Session.

Officers of the Executive Committee

220. The Committee decided that the Executive Committee should continue to meet at least once in between sessions of the Committee to review and, if necessary, modify the activities of the Committee, as well as continue to provide assistance and guidance to the Executive Secretary. It was agreed that the Executive Committee should have power to co-opt.

221. It was agreed that the Executive Committee be composed of:

J.R. Morschel (Australia)	Chairman
S.N. Banerjee (India)	Member
L.G. Morrison (New Zealand)	Member
Riksh Syamananda (Thailand)	Member

222. The Executive Secretary would continue to act as the Convener of the Executive Committee.

Eleventh Session

223. The Committee agreed that the Eleventh Session of the Committee should be held as provided in the Agreement at a time and place to be arranged by FAO.

XI. CLOSING REMARKS BY THE CHAIRMAN

224. The Chairman of the Committee, Mr. J.R. Morschel, drew attention to the urgent need for increased food production through minimizing crop losses attributable to pests and diseases. He stated that this was a real challenge for the Committee. The Committee can claim some measure of success in initiating some programmes and action, Mr. Morschel continued, but one should keep in mind that it may take some years before the results are manifest. There is no magic solution and the desired results can be achieved only through persistent endeavours by all concerned.

225. While briefly summing up the deliberations, the Chairman said that the seven general recommendations of the Committee and the various recommendations and suggestions made, are indicative of the priority programmes and needs in plant protection. He particularly mentioned the urgent need for finalizing the review of the International Plant Protection Convention started in 1973; strengthening and expanding plant protection programmes, especially to benefit the small farmer; stored product infestation control; commodity treatments and biological and integrated control.

226. On the Committee's recommendation on further strengthening the co-ordinating mechanism both at national and regional levels, Mr. Morschel said, that plant protection is one unit and not as a fragmentation of disciplines. To be effective, plant protection must encompass entomology, plant pathology, virology, nematology, plant quarantine, biological control and integrated control as well as pesticides. Therefore, plant protection called for an integrated approach and unified programming. He also mentioned that the Twelfth FAO Regional Conference for Asia and the Far East passed a Resolution on organic linkage between the Plant Protection Committee and the Regional Conference, which involved greater responsibilities and more co-ordinating, advisory and programming roles for the Committee. The Chairman hoped that the Committee will adequately meet these emerging realities and increased responsibilities.

XII. RECOMMENDATIONS

1. The Committee,

Acknowledging the resolution of the Twelfth FAO Regional Conference (1974) that the Plant Protection Committee should organically be linked with the Regional Conference and thereby should have greater responsibility in determining regional plant protection policy;

Recognizing that the present FAO Plant Protection staff at the Regional Office headquarters is inadequate for the present programme; and

Commending the significant contribution made by the present Plant Protection Officer at Bangkok over a number of years;

Recommended that, as a priority for any increased responsibility for the Committee, additional staff, comprising of at least two professional, one technical assistant and one secretary at general service level, should be provided to the Plant Protection Service at Bangkok.

It further recommended that with the appointment of the staff, the Committee and the Executive Committee should become fully responsible for the development of plant protection policy in the Region.

2. The Committee,

Acknowledging that the International Plant Protection Convention of 1951 has been a most valuable instrument;

Recognizing that there is a need to fully review the Convention in the light of the developments in international trade, particularly in relation to agricultural products, during the past twenty five years; and

Considering that an ad-hoc Consultation met in Rome in 1973 and the Director-General subsequently sought comments from member countries;

Recommended strongly that a further Consultation take place as speedily as possible but not later than November 1976, with the express purpose of finalizing amendments for consideration at the FAO Conference in 1977.

3. The Committee,

Being aware of the international recognition of the vital role of plant protection in increasing productivity;

Having acknowledged that there are several aspects of plant protection that need further strengthening; and

Considering the urgent need for regional co-operation in plant protection, programme and project development and identification of priority areas;

Recommended that programmes and projects in the following areas should be developed, strengthened and implemented:

(a) strengthening of plant protection services;
(b) regional co-ordinated research for the control of the rice gall midge;
(c) brown plant hopper;
(d) downy mildew of maize, sorghum and pearl millet;
(e) regional programme on vertebrate pest control;
(f) aerial application of pesticides;
(g) weeds and weed control;
(h) inter-change of information;
(i) aircraft disinsection procedures; and
(j) plant quarantine and plant protection publicity.

4. The Committee,

Having considered the various plant protection programmes and projects in operation in the Region and the priority activities proposed;

Being aware of the need for regional co-operation in plant protection and the efficient utilization of resources available in the Region for the mutual benefit of the member countries;

Recognizing that this can best be achieved through a regional mechanism for co-ordination of the plant protection programmes;

Recommended that the existing co-ordination through the Secretariat should be further strengthened and any new co-ordination mechanism that might be established should be within the overall framework of the Plant Protection Committee.

5. The Committee,

Recognizing the need for having its own finances for initiating programmes;

Acknowledging that there are no provisions in the Plant Protection Agreement for the Committee to raise its own finances; and

Being aware that other Regional Technical Bodies, such as, the Regional Animal Production and Health Commission for Asia, the Far East and the South-West Pacific and the Desert Locust Control Committee have their own financial resources through trust fund arrangements and voluntary contributions;

Recommended that efforts should be made by Governments to secure voluntary contributions for the Committee. Meanwhile the FAO should take appropriate action on an urgent basis and report to the next meeting of the Executive Committee.

6. The Committee,

Acknowledging the urgent need for the development of plant protection strategy in the small farmer development;

Recognizing the serious crop losses in rainfed agriculture, where small low-income farmers are mainly involved;

Being aware of the recommendations of the Expert Panel on Pest, Disease and Weed Problems in Some Rainfed Crops in Asia and Far East, and a Regional Project Proposal in this regard;

Recommended that as a follow up, the Regional Project Proposal should be further elaborated and finalized in consultation with interested Governments.

Further, the Committee suggested that the services of a consultant experienced in the needs of small farmers should be made available to the Regional Secretariat for this purpose. The Committee also suggested that the availability of the Consultant Services from the Region may be explored.

7. The Committee,

Recognizing the increasing significance and importance of the forestry and timber resources and the greater dependence upon the plantation type of monoculture forests;

Considering that pests and diseases, especially exotic species, pose an acute threat to monoculture forest programmes both in the establishment and mature phases;

Acknowledging the minor consideration the forest entomology and pathology have so far received in the Region;

Recommended that member countries intensify their entomological and pathological services associated with forestry and adopt appropriate plant protection and quarantine measures to prevent the spread and/or introduction of forestry pests and diseases through seeds, propagating materials and timber.

Appendix I

AGENDA

1. Opening of the Session
2. Election of the Chairman
3. Adoption of the Agenda
4. Designation of Vice-Chairman and Ad-hoc Sub-Committees
5. Present Status of the Plant Protection Agreement for the South East Asia and Pacific Region
6. Programme and Activities of the Committee - Statement by the Executive Secretary
7. Implementation of the Agreement and Recommendations of the Committee - Statements by Delegates
8. Measures Designed to Prevent the Introduction into and Spread within the Region of Plant Pests and Diseases
9. Special Plant Protection Problems in the Region:
   - (a) Regional co-operation for the development and strengthening of plant protection in the Region
   - (b) Consideration of regional plant protection programmes, with special reference to the recommendations of World Food Conference, World Food Council and FAO ad-hoc Consultation on Pesticides
   - (c) Consideration of regional implications of the recommendations of the ad-hoc Consultation on International Plant Protection Convention
   - (d) Development of plant protection strategy in the small farmer development
   - (e) Integrated pest control in some rainfed crops
   - (f) Development of standard methods of inspection and treatment of plant materials in international traffic
   - (g) Biological control of weeds, with particular reference to the experience in Australia
   - (h) Registration of plant nurseries and the role of proposed Fruit Variety Foundation in Australia
   - (i) Investigations in common stored products pests
   - (j) A review on Australian research on insect disinfestation in fruit and vegetables after harvest
   - (k) Disease forecasting in Australia
   - (l) Plant protection in forestry and forest products
10. Training in Plant Protection
11. Programme of the Committee
12. Time and Place of the Eleventh Session of the Committee
13. Other Matters
14. Adoption of the Report

Appendix II

List of Working Papers

RAFE:PPC:SEAP/76/1	Provisional Agenda
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RAFE:PPC:SEAP/76/5/3	Status of the Plant Protection Agreement, July 1975
RAFE:PPC:SEAP/76/5/4	Present Status of the Plant Protection Committee
RAFE:PPC:SEAP/76/6/5	Statement by the Secretary
RAFE:PPC:SEAP/76/6/6	Report of the Eleventh Executive Committee Meeting
RAFE:PPC:SEAP/76/8/7	Measures Designed to Prevent the Introduction into and Spread within the Region of Plant Pests and Diseases
RAFE:PPC:SEAP/76/8/8	Information Letter No. 103
RAFE:PPC:SEAP/76/8/9	Pingalap Disease of Breadfruit
RAFE:PPC:SEA P/76/6/10	Information Note on Plant Protection Committee
RAFE:PPC:SEAP/76/9/11	Regional Co-operation for the Development and Strengthening of Plant Protection in the Region
RAFE:PPC:SEAP/76/9/12	Consideration of Regional Plant Protection Programmes with Special Reference to the Recommendations of World Food Conference, World Food Council and FAO ad-hoc Consultation on Pesticides
RAFE:PPC:SEAP/76/9/13	Consideration of Regional Implications of Recommendations of the ad-hoc Consultation on International Plant Protection Convention
RAFE:PPC:SEAP/76/9/14	Development of Plant Protection Strategy in the Small Farmer Development
RAFE:PPC:SEAP/76/9/15	Integrated Pest Control in some Rainfed Crops
RAFE:PPC:SEAP/76/9/16	Report of the Expert Panel on Pest, Disease and Weed Problems in Rainfed Crops in Asia and the Far East
RAFE:PPC:SEAP/76/9/17	Reviews on Pest, Disease and Weed Problems in Rainfed Crops in Asia and the Far East
RAFE:PPC:SEAP/76/9/18	Development of Standard Methods of Inspection and Treatment of Plant Materials in International Traffic
RAFE:PPC:SEAP/76/10/19	Training in Plant Protection
RAFE:PPC:SEAP/76/9/20	Suggested Amendments to the International Plant Protection Convention
RAFE:PPC:SEAP/76/9/21	National Plant Protection Organizations - Questionnaire
RAFE:PPC:SEAP/76/9/22	FAO/UNEP Co-operative Global Programme on Integrated Pest Control
RAFE:PPC:SEAP/76/7/23	Progress in Implementation of Agreement - Australia
RAFE:PPC:SEAP/76/9/24	Regional Co-operation - Australia
RAFE:PPC:SEAP/76/9/25	International Plant Protection Convention - Australia
RAFE:PPC:SEAP/76/9/26	Development of Standard Methods of Inspection and Treatment of Plant Materials in International Traffic - Australia

RAFE:PPC:SEAP/76/9/27	Biological Control of Weeds, with Particular Reference to the Experience in Australia
RAFE:PPC:SEAP/76/9/28	Registration of Plant Nurseries and Establishment of Fruit Variety Foundation (FVF) in Australia
RAFE:PPC:SEAP/76/9/29	Disease Forecasting in Australia
RAFE:PPC:SEAP/76/9/30	Report of the International Seminar on Deep Water Rice
RAFE:PPC:SEAP/76/9/31	Review of FAO Pesticide Programmes
RAFE:PPC:SEAP/76/9/32	Industry Co-operative Programme (ICP)
RAFE:PPC:SEAP/76/10/33	Training in Plant Protection (Quarantine) - Australia
RAFE:PPC:SEAP/76/9/34	Technical Document No. 101 - New Records of Pests and Diseases in South East Asia and Pacific Region, November 1973 - December 1975
RAFE:PPC:SEAP/76/9/35	Information Letter No. 107 - Resistance of Plant Pests and Diseases to Pesticides in Asia and the Far East
RAFE:PPC:SEAP/76/7/36	Development of Plant Protection Services in Peninsular Malaysia
RAFE:PPC:SEAP/76/7/37	Response of the Delegation from Thailand on General Recommendations of the Plant Protection Committee
RAFE:PPC:SEAP/76/7/38	Activities of Plant Protection and Plant Quarantine in Indonesia for the Period 1974-75
RAFE:PPC:SEAP/76/7/39	Implementation of the Agreement of Recommendations of the Committee - Pakistan
RAFE:PPC:SEAP/76/7/40	Statement on the Implementation of the Agreement and Recommendations of the 9th Session of the Committee - Philippines
RAFE:PPC:SEAP/76/7/41	Country Statement - India
RAFE:PPC:SEAP/76/9(d)/42	A Proposed Programme for the Establishment of a Regional Rodent Research and Training Centre and a Network of Rodent Management Technology in South East Asia - Philippines
RAFE:PPC:SEAP/76/9(d,e)/43	Crop Protection Scheme Incorporated in Masagana Programme Irrigated Ricefield Transplanted - Philippines
RAFE:PPC:SEAP/76/9(d,e)/44	Rainfed Direct Seeding Programmes - Philippines
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RAFE:PPC:SEAP/76/9(f)/46	Lifting of the Plant Quarantine Prohibition of the Export of Philippine Manila Super Mango, var. garaboo mango to Japan - Philippines
RAFE:PPC:SEAP/76/9(h)/47	Citrus Rehabilitation Programme - Philippines
RAFE:PPC:SEAP/76/10/48	Training in Plant Protection - Philippines
RAFE:PPC:SEAP/76/9/49	The Importance of Pesticides in Modern Agriculture - Published by N.S.W. Department of Agriculture - Australia
RAFE:PPC:SEAP/76/9/50	Report of FAO Committee of Experts on Pest Control held in Rome, Italy 2-15 April 1975

RAFE:PPC:SEAP/76/9/51	Pesticide Residues and their Significance in Handling and Storage of Grain (Lecture to International Training course in the Preservation of Stored Cereals 1975)
RAFE:PPC:SEAP/76/9/52	Pesticide Legislation in Australia
RAFE:PPC:SEAP/76/9/53	The Importance of Chlorinated Hydrocarbons in World Agriculture - Australia
RAFE:PPC:SEAP/76/9/54	Residues in Meat, Milk and Eggs and Methods of avoiding them - Australia
RAFE:PPC:SEAP/76/9/55	A Review of Australian Research on Insect Disinfestation in Fruit and Vegetables after Harvest
RAFE:PPC:SEAP/76/9/56	Research on Stored Products Entomology being carried out in Australia in the Commonwealth Scientific and Industrial Research Organization and in State Departments of Agriculture
RAFE:PPC:SEAP/76/9/57	Trends in the Use of Pesticides in Australia
RAFE:PPC:SEAP/76/9/58	Plant Protection of Forestry and Forest Products - Australia
RAFE:PPC:SEAP/76/9/59	Biological Control of Weeds in Australia

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